

REMARKS

Claims 1-3, 5, 7, 9, 10, 18-20, and 22 are now pending in the application. Claims 4, 6, 8, 11-17, and 21 have been cancelled. Claims 1, 18, 19, and 22 have been amended. The claim amendments are fully supported by the application as filed, do not present new subject matter, and will not require further search or consideration for the reasons set forth below. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM AMENDMENTS

Independent Claim 1 has been amended to include the subject matter of Claim 6 previously dependent therefrom. Independent Claim 18 has been amended to correct a minor typographical error. Independent Claim 19 has been amended to include the subject matter of Claim 21 previously dependent therefrom. Dependent Claim 22 has been amended to change its dependency in view of the cancellation of Claim 21. The claim amendments do not present new subject matter and will not require further search or consideration. Therefore, the amendments are proper after final. Applicant respectfully requests entry and consideration of the claim amendments.

CLAIM OBJECTIONS

Claims 11-16 stand objected to as being of improper dependent form because, according to the Office Action, "it is conceivable that the device claim can be infringed without infringing the base method claim, since the device is for performing the method of claim 1, but it is not required to perform the method of claim 1." Claim 18 stands objected to because there are two "d' steps."

In order to expedite prosecution of this application, Applicant has cancelled Claims 11-16. Applicant has amended Claim 18 to correct the typographical error. Applicant respectfully requests reconsideration and withdrawal of these claim objections.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-6, 9-13, 16, and 18-22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Lappe et al. (U.S. Pat. No. 5,565,054) in view of Vaughn et al. (U.S. Pat. No. 6,983,686).¹ This rejection is respectfully traversed.

Independent Claim 1

Amended independent Claim 1 recites, in part, coating the print products with a thin adhesive layer, transferring a transfer film to the print products, “providing an embossing and/or a structure according to an embossing and/or a structure processing method in a further method step; and drying the print products to be produced after coating the print products and/or after printing the print products in color; wherein the print products to be produced successively undergo the steps of the method without intermediate storage.”

Use of an adhesive layer and transfer film to produce the print products requires a drying step for production to take place in-line, i.e. “wherein the print products to be produced successively undergo the steps of the method without intermediate storage,” as set forth in Claim 1. For example, in the embodiment of Figure 1 the adhesive layer 3 (Figure 5) with the transfer film mounted thereto should be dry prior to embossing or

¹ The Vaughn et al. reference appears to be prior art as of the June 23, 2003 filing date of Provisional Application No. 60/480,714. Applicant points out that he is entitled to the benefit of EPSN 03026230.7 filed on November 14, 2003. Applicant thus reserves the right to swear behind the Vaughn et al. reference to disqualify it as prior art pursuant to 37 C.F.R. § 1.131 should Vaughn et al. be used to reject the claims in the future.

printing. See p. 15, ¶ 2; p. 16, ¶ 1. With respect to the embodiment of Figure 2, the base layer 2 and any material printed thereon should be dry to “assure a correct application of the adhesive agent 3 and a subsequent application of the transfer layer.” See page 16, ¶ 4. Without the in-line drying step, the substrate would be subject to an intermediate storage step to dry the adhesive, which is time consuming and thus increases production costs by limiting the number of print products that can be produced during a given production period.

The Lappe et al. reference appears to disclose, with reference to Figure 1, applying a transfer film 10 onto a base 2 using an adhesive 3. The Office Action acknowledges at page 3 that “Lappe does not teach providing an embossing and/or a structure according to an embossing and/or a structure processing method in a further method step, wherein the print products to be produced successively undergo the steps of the method without intermediate storage,” as generally set forth in Claim 1. The Lappe et al. reference also fails to suggest a need for, or the desirability of, these features.

The Vaughn et al. reference appears to disclose, with reference to Figure 1, a device and method for embossing and printing a stretchable substrate 10, such as paper towel. The embossing is performed first using rollers 21 and 22. The printing is subsequently performed by standard rotary printing techniques using printing roller 31 and counter-pressure roller 32 to print ink directly on paper towel. See col. 5, lines 40-61. Vaughn et al. fails to disclose or suggest forming printing products using an adhesive and a transfer film, as set forth in amended Claim 1.

With respect to the claimed drying feature of amended Claim 1, which was previously presented in dependent Claim 6, the Office Action asserts that “it appears that in both Lappe and Vaughn, the print products would dry naturally after each operation is performed.” See Office Action at 5.

The Office Action’s combination of the Lappe et al. and Vaughn et al. references is improper. Lappe et al. fails to disclose or suggest a need for, or the desirability of, a continuous process for embossing and/or printing base material with a transfer film secured thereto via an adhesive. Vaughn et al. does not use transfer film printing as Lappe et al. does, but rather rotary printing, which is an entirely different printing technique. Therefore, one skilled in the art would not have combined the references and the Office Action’s combination is based on impermissible hindsight.

Even if proper, the combination fails to arrive at the claimed invention because both references fail to disclose or suggest “drying the print products to be produced after coating the print products and/or after printing the print products in color,” as claimed. Even if natural air drying constitutes a drying step as the Office Action asserts, natural drying would be insufficient to permit production of the print products whereby they “successively undergo the steps of the method without intermediate storage” as claimed because there would not be enough time for natural drying between the different procedures and thus intermediate storage, such as by stopping the line, would be necessary to permit natural drying.

Because combination of the Lappe et al. and Vaughn et al. references is based on impermissible hindsight and fails to suggest Applicant’s claimed drying step,

Applicant respectfully requests reconsideration and withdrawal of this Section 103 rejection of amended Claim 1 and those claims dependent therefrom.

Independent Claim 18

Amended independent Claim 18 recites, in part and with reference to Figures 1 and 5 for example, the following successive and continuous process steps: “a.) a base layer [2] is coated with an adhesive layer [3] in a first stage; b.) a transfer film [10] is provided having at least a carrier foil layer [18], a parting layer [19] and a transfer layer [20], wherein the transfer layer is separated from the film and adhered to said base layer with a transfer or printing unit [7] in a second stage; c.) said base layer is stamped and/or embossed in a third stage before or after said step b.); d.) the base layer is printed in a fourth stage; e.) “the base layer is dried in a **drying unit** [26] in a fifth stage located downstream of the stages performing steps a.) or d.); and wherein the steps a-e are performed successively without intermediate storage” (emphasis added).

The relevant teachings of Lappe et al. and Vaughn et al. are set forth above in the discussion of Claim 1. In addition to the deficiencies of the references set forth above, both Lappe et al. and Vaughn et al. fail to disclose or suggest use of a “drying unit” as claimed.

With respect to the claimed “drying unit,” the Office Action states that the “base layer has time to dry between steps.” Even if the Office Action is correct, this conclusory statement fails to establish a *prima facie* case of obviousness with respect to use of a “drying unit” as claimed. Therefore, combination of the references fails to render obvious the claimed step of “the base layer is dried in a *drying unit*” (emphasis added). Any assertion that the housing 6 of Lappe et al. is a drying unit because air

drying could take place therein would be based on impermissible hindsight because the housing does not actively dry the base layer as the claimed “drying unit” does. The Section 103 rejection of Claim 18 should be withdrawn on this basis alone.

The Section 103 rejection is also improper because, as set forth above with respect to Claim 1, there would have been no motivation to combine the Lappe et al. reference, which requires the use of an adhesive and transfer film to carryout printing, with the Vaughn et al. reference, which prints ink directly onto paper towel without use of an adhesive or transfer film. The Office Action's combination of these references is based on impermissible hindsight.

Even if proper, the combination fails to suggest positioning the drying unit “in a fifth stage located downstream of the stages performing steps a.) [coating base layer with adhesive] or d.) [printing base layer], as claimed.” In Lappe et al. there is no need for a drying unit after the adhesive and transfer film are applied because the substrate is not subsequently embossed or printed in-line. In Vaughn et al. there is no need for a drying unit after embossing or printing because an adhesive is not used. Thus, combination of the references fails to render obvious “...a drying unit in a fifth stage located downstream of the stages performing steps a.) or d.)” as claimed.

Finally, without drying using a “drying unit” as claimed, the references do not render obvious the feature of “wherein the steps a-e are performed successively without intermediate storage” because air drying would require intermediate storage such as by, for example, stopping the printing line or removing the base material to provide sufficient time for air drying to take place.

Thus, because combination of the Lappe et al. and Vaughn et al. references is based on impermissible hindsight and fails to render obvious Applicant's claimed step of drying in a "drying unit," Applicant respectfully requests reconsideration and withdrawal of this Section 103 rejection of Claim 18.

Independent Claim 19

Amended independent Claim 19 is an apparatus claim and recites, in part and with reference to Figures 1 and 5 for example, "a printing device [29] to print a material on said base material, a drying unit [26] to dry said adhesive, and a pressing unit [8] having a plurality of calenders to compress said base layer and said transfer layer; wherein said base layer interacts with said gluing unit, said structure and/or stamping device, and said film transfer device in succession without intermediate storage."

The relevant teachings of Lappe et al. and Vaughn et al. are set forth above in the discussion of Claim 1. Both references also fail to disclose or suggest a "drying unit" as claimed.

With respect to the "drying unit," the Office Action only states that, in connection with the rejection of previously pending Claim 21, the "adhesive dries after being applied, Fig. 1)." Even if Office Action is correct, this conclusory statement fails to establish a *prima facie* case of obviousness with respect to the claimed "drying unit." Any assertion that the housing 6 of Lappe et al. is a drying unit because air drying could take place therein would be based on impermissible hindsight because the housing does not actively dry the adhesive as the claimed "drying unit" does. On this basis alone, the Section 103 rejection of Claim 19 should be withdrawn.

The Section 103 rejection is also improper because, as set forth above with respect to Claim 1, there would have been no motivation to combine the Lappe et al. reference, which requires the use of an adhesive and transfer film to carryout printing, with the Vaughn et al. reference, which prints ink directly onto paper towel without use of an adhesive or transfer film. The Office Action's combination of these references is therefore based on impermissible hindsight.

Even if proper, the combination fails to suggest an apparatus comprising “a drying unit to dry said adhesive.” In Lappe et al. there is no need for a drying unit after the adhesive and transfer film are applied because the substrate is not subsequently embossed or printed in-line. In Vaughn et al. there is no need for a drying unit because there is no adhesive to dry. Thus, combination of the references fails to render the claimed “drying unit” obvious.

Finally, without the claimed “drying unit to dry said adhesive,” the references cannot render obvious the feature of “wherein said base layer interacts with said gluing unit, said structure and/or stamping device, and said film transfer device in succession without intermediate storage” because air drying would require intermediate storage such as by, for example, stopping the printing line or removing the base material to provide sufficient time for air drying to take place.

Thus, because combination of the Lappe et al. and Vaughn et al. references is based on impermissible hindsight and fails to render obvious Applicant's claimed “drying unit to dry said adhesive,” Applicant respectfully requests reconsideration and withdrawal of this Section 103 rejection of amended Claim 19 and those claims dependent therefrom.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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